Attorney's Docket No.: 002717.P033                                    **PATENT**

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
## BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

|  |  |
|---|---|
| In re application of: ) | |
| ) | Examiner: Phuc H Tran |
| **Fawaz et al.** ) | |
| ) | Art Unit: 2666 |
| Application No: 09/189,819 ) | |
| ) | |
| Filed:  November 10, 1998 ) | |
| ) | |
| For:   METHOD AND APPARATUS TO ) | |
| MINIMIZE CONGESTION IN A PACKET ) | |
| SWITCHED NETWORK ) | |

Assistant Commissioner For Patents
P.O. Box 1450
Alexandria, VA  22313-1450

## APPEAL BRIEF
### IN SUPPORT OF APPELLANTS' APPEAL
### TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants (hereafter "Appellants") hereby submit this Brief in support of an Appeal from

a final decision by the Examiner, mailed October 29, 2004, in the above-referenced case.

Appellants respectfully request consideration of this Appeal by the Board of Patent Appeals and

Interferences for allowance of the present patent application.

# TABLE OF CONTENTS

## I.   REAL PARTY IN INTEREST

The real party in interest of the above-referenced U.S. Patent application is Extreme Networks, Inc. of 3585 Monroe Street, Santa Clara, California 95051, to whom the application has been assigned.

## II.   RELATED PROCEEDINGS

To the best of Appellants' knowledge, there are no prior or pending appeals, interferences, or judicial proceedings related to the subject matter of this appeal that will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

## III.   STATUS OF THE CLAIMS

Claims 1-4, 9, 15, and 22-24 have been canceled.

Claims 5-8, 10-14, and 16-21 are pending in the above-referenced application, and were rejected in the Final Office Action mailed October 29, 2004. The rejected claims are the subject of this Appeal.

## IV.   STATUS OF AMENDMENTS

In response to the Final Office Action mailed October 29, 2004 rejecting the claims as set forth above in Section III, Appellants filed a Notice of Appeal on January 31, 2005. No amendments have been filed in response to the referenced Final Office Action. A claim listing including a copy of all claims on appeal is attached hereto as Appendix A.

## V.   SUMMARY OF THE INVENTION

In a network system, a switching point may mark traffic associated with a particular service level agreement (SLA) as congested. See p. 18, line 28 to p. 19, line 1. A switching

point detecting congestion with a particular SLA sends messages to neighboring switching nodes to indicate the congestion. See p. 19, lines 6-7. A switching point receiving the congestion indication can reduce the data rate of packets associated with the particular SLA based on the message. See p. 19, lines 7-12 and 21-26; also, p. 20, lines 1-18.

## VI.   GROUNDS OF REJECTION

Claims 5-8, 10-14, and 16-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,324,165 of Fan et al. (*Fan*) in view of U.S. Patent No. 6,452,905 of Smith et al. (*Smith*).

## VII.   ARGUMENT

Claims 5-8, 10-14, and 16-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Fan* and *Smith*. Appellants respectfully submit that this rejection is improper because the references, whether alone or in combination, fail to disclose at least one element of the claims.

### Claims 5-6, 8, 10-11, 13, and 16-17

Claim 5 recites the following:

> maintaining a plurality of service level agreements (SLAs) at a first switching point, each SLA having a corresponding minimum data rate;
> transmitting data packets **received at the first switching point** corresponding to each SLA at or above the minimum data rate in accordance with the respective SLA;
> **receiving a message from a second switching point at the first switching point to indicate that traffic between a source and a destination is congested**; and
> adjusting a data rate at which packets corresponding to an SLA, destined for the destination, are output from the first switching point in response to receiving the message to reduce the congestion.

Claims 10 and 16 recite similar limitations directed to a congestion message sent between **switching points** to indicate that traffic is congested.

The Final Office Action at page 3 states that *Fan* fails to disclose receiving a message from a second switching point at a first switching point to indicate congestion between a source and a destination. The Office Action cites *Smith* as disclosing this limitation, specifically Figures 1 and 2 of the reference. Appellants traverse this assertion. The reference fails to disclose or suggest a first switching point indicating congestion to a second switching point. Rather, the *Smith* reference, as with other references cited in previous Office Actions (see Appellants' Response filed 10 June 2004), discusses messages transmitted between **endpoints** in a network system. As Appellants previously asserted in a Response filed 17 November 2003, Smith fails to discuss a congestion message sent between switching points, as recited in the claims.

Figure 1 of *Smith* is shown having an "end system 14" (labeled "end station 14" in Figure 1) and a "dynamic bandwidth controller (DBC) 20," both of which are discussed generally at col. 5, lines 14 to 61. DBC 20 is discussed as automatically allocating bandwidth for traffic incoming from end system 14, restricting traffic on a path to a particular cell rate (CR). See col. 5, lines 31 to 37 and col. 5, lines 58 to 61. Figure 2 of *Smith* is shown having an "end system 14A" (labeled "end station 14A" in Figure 2) that acts as a traffic source for the system, and "end system 14B (labeled "end station 14B" in Figure 2) that acts as the destination. Figure 2 also shows multiple DBCs 20-1 and 20-2. *Smith* specifically states at col. 6, lines 3 to 4 that "[e]ach DBC 20-1, 20-2 is also responsible for **advising the end system 14A** of the current applicable CR," and at col. 6, lines 17 to 19 that "[t]his allocation is then indicated to the DBC 20, 20-1, 20-2 which **communicates the CR to the <u>transmitting</u> end-system 14.**" Thus, the *Smith* reference discusses transmission of cell rate information only to a source (a transmitting end system), and

fails to disclose or suggest transmitting a message from a first switching point to a second switching point to indicate congestion between a source and a destination, as recited in the claims. Therefore, the cited references, whether alone or in combination, fail to disclose or suggest at least one element of the claimed invention, and so fail to render obvious the invention under MPEP § 2143.

### Claims 14, 19, and 21

Claim 14 recites the following:

> managing a plurality of service level agreements (SLAs) specifying a minimum data rate of transmission for packets corresponding to each SLA, at each switching point;
> **sending a message from a downstream switching point to an upstream switching point** to cause the upstream switching point to reduce a data rate at which packets associated with a specific SLA to be forwarded by the upstream switching point are output from the upstream switching point to a device downstream from the downstream switching point; and
> **sending a message from the downstream switching point to the upstream switching point** to cause the upstream switching point to increase the data rate at which packets associated with the specific SLA are output from the upstream switching point to the device downstream from the downstream switching point.

Claim 19 recites similar limitations directed to a sending a message to an upstream switching point.

The discussion above with respect to claims 5, 8, 10, 13, and 16 applies equally well to these claims. Furthermore, claims 14 and 19 specifically recites sending a message from a downstream switching point to an upstream switching point, with respect to a traffic flow. The cited references, whether alone or in combination, fail to disclose or suggest transmitting a congestion message from a downstream switching point to an upstream switching point. Because the cited references fail to disclose or suggest at least one element of the claimed invention, the cited references fail to render obvious the invention under MPEP § 2143.

## Claims 7, 12, 18, and 20

Claim 7 depends from claim 5, set forth above, and further recites the following:

reducing the data rate below the minimum data rate.

Claims 12, 18, and 20 recite similar limitations directed to a switching point reducing a data rate below a minimum data rate specified for an SLA.

The discussion in the references fails to disclose a switching point reducing a data rate for traffic associated with a particular SLA to a rate below a minimum data rate specified for the SLA. Therefore, the references fail to disclose or suggest at least one element of the invention as recited in these claims, and so fails to render the invention obvious under MPEP § 2143.

## CONCLUSION

Appellants respectfully submit that all appealed claims in this application are patentable and request that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

A single copy of this brief is submitted as per 37 C.F.R. §41.37(a), along with a check for

$320.00 to cover the appeal fee for one other than a small entity as specified in 37 C.F.R.

§1.17(c). Please charge any shortages and credit any overcharges to our Deposit Account No.

02-2666.

Respectfully submitted,
**BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP**

Date: _3/23/05_

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to Commissioner for Patents, P.O. Box 145?  ................ VA, 223..? .....

_3/23/05_
Date of Depo...

Rachael Brown
Name of Person Mailing Correspondence

Signature                                    3/23/05
                                             Date

## IX.  APPENDIX: CLAIMS ON APPEAL

**1-4.**  (Canceled)

**5.**  (Previously Presented) A method for controlling congestion in a network having a plurality of switching points, comprising:

maintaining a plurality of service level agreements (SLAs) at a first switching point, each SLA having a corresponding minimum data rate;

transmitting data packets received at the first switching point corresponding to each SLA at or above the minimum data rate in accordance with the respective SLA;

receiving a message from a second switching point at the first switching point to indicate that traffic between a source and a destination is congested; and

adjusting a data rate at which packets corresponding to an SLA, destined for the destination, are output from the first switching point in response to receiving the message to reduce the congestion.

**6.**  (Previously Presented) The method of claim 5 wherein adjusting the data rate for packets corresponding to the SLA to reduce the congestion includes reducing the data rate to the minimum data rate for the SLA.

**7.**  (Previously Presented) The method of claim 5 wherein adjusting the data rate for packets corresponding to the SLA to reduce the congestion includes reducing the data rate below the minimum data rate.

**8.**  (Previously Presented) The method of claim 5 wherein maintaining SLAs further comprises separating the data packets into different queues corresponding to each different SLA.

**9.**  (Canceled)

**10.** (Previously Presented) An article of manufacture comprising a machine-accessible medium that includes content that when accessed provides instructions to cause a machine to:

maintain a plurality of service level agreements (SLAs) at a first switching point, each SLA having a corresponding minimum data rate;

transmit data packets received at the first switching point corresponding to each SLA at or above the minimum data rate in accordance with the respective SLA;

receive a message from a second switching point to indicate that traffic between a source and a destination is congested; and

adjust a data rate at which packets corresponding to an SLA, destined for the destination, are transmitted in response to receiving the message to reduce the congestion.

**11.** (Previously Presented) The article of manufacture of claim 10 wherein the content to provide instructions to cause the machine to adjust the data rate for an SLA to reduce the congestion includes the content providing instructions to cause the machine to reduce the data rate to the minimum data rate for the SLA.

**12.** (Previously Presented) The article of manufacture of claim 10 wherein the content to provide instructions to cause the machine to adjust the data rate for an SLA to reduce the congestion includes the content providing instructions to cause the machine to reduce the data rate below the minimum data rate for the SLA.

**13.** (Previously Presented) The article of manufacture of claim 10 wherein the content to provide instructions to cause the machine to maintain SLAs further comprises the content providing instructions to cause the machine to separate the data packets into different queues corresponding to each different SLA.

**14.** (Previously Presented) A method of controlling congestion among a plurality of switching points, comprising:

managing a plurality of service level agreements (SLAs) specifying a minimum data rate of transmission for packets corresponding to each SLA, at each switching point;

sending a message from a downstream switching point to an upstream switching point to cause the upstream switching point to reduce a data rate at which packets associated with a specific SLA to be forwarded by the upstream switching point are output from the upstream switching point to a device downstream from the downstream switching point; and

sending a message from the downstream switching point to the upstream switching point to cause the upstream switching point to increase the data rate at which packets associated with the specific SLA are output from the upstream switching point to the device downstream from the downstream switching point.

**15.** (Canceled)

**16.** (Previously Presented) A system comprising:

a first switching point to receive data packets, transmit the data packets to another switching point, manage service level agreements (SLAs) specifying a minimum data rate for packets corresponding to the SLA, and send a message to indicate that traffic between a source and a destination is congested; and

a second switching point coupled with the first switching point to manage SLAs specifying a minimum data rate for packets corresponding to the SLA, transmit packets from the second switching point in accordance with the SLA, receive the message from the first switching point, and reduce a data rate at which packets corresponding to an SLA indicated in the message,

destined for the destination, are output from the second switching device in response to receiving the message.

17.     (Previously Presented) The system of claim 16 wherein the second switching point reducing the data rate includes the second switching point to reduce the data rate to the minimum data rate specified by the corresponding SLA.

18.     (Previously Presented) The system of claim 16 wherein the second switching point reducing the data rate includes the second switching point to reduce the data rate to below the minimum data rate specified by the corresponding SLA.

19.     (Previously Presented) A method for controlling congestion in a network having a plurality of switching points, comprising:

        maintaining a plurality of service level agreements (SLAs) at a switching point, each SLA having a corresponding minimum data rate;

        receiving data packets corresponding to at least one of the SLAs ;

        detecting congestion for data packets corresponding to the at least one of the SLAs; and

        sending a message from the switching point to indicate the congestion to an upstream switching point, the upstream switching point to route packets received from further upstream, to cause the upstream switching point to adjust a data rate at which packets corresponding to the at least one of the SLAs are output from the upstream switching point in response to the message.

20.     (Previously Presented) The method of claim 19 wherein sending a message to indicate congestion to an upstream switching point comprises sending a message to indicate to the upstream switching point to reduce the data rate to a rate at or below the minimum data rate for the SLA.

**21.**     (Previously Presented) The method of claim 19 further comprising:

sending a message from the switching point to an upstream switching point to cause the

upstream switching point to increase the data rate when congestion is no longer detected for data

packets corresponding to the at least one SLA.

**22-24.** (Canceled)

# TRANSMITTAL FORM

*(to be used for all correspondence after initial filing)*

| Application No. | 09/189,819 |
|---|---|
| Filing Date | November 10, 1998 |
| First Named Inventor | Ayman Fawaz |
| Art Unit | 2666 |
| Examiner Name | Phuc H. Tran |

| Total Number of Pages in This Submission | 6 | Attorney Docket Number | 2717P033 |
|---|---|---|---|

## ENCLOSURES   *(check all that apply)*

- ☒ Fee Transmittal Form
  - ☒ Fee Attached
- ☐ Amendment / Response
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
  - ☐ PTO/SB/08
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Basic Filing Fee
  - ☐ Declaration/POA
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s)

- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☒ Appeal Communication to Group **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) *(please identify below):*

  - Check for $500.00
  - Return Postcard

**Remarks**

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| Firm or Individual name | Vincent H. Anderson, Reg. No. 54,962 <br><br> BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP |
|---|---|
| Signature | *Vincent H. A* |
| Date | March 23, 2005 |

## CERTIFICATE OF MAILING/TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

| Typed or printed name | Rachael L. Brown | | |
|---|---|---|---|
| Signature | *RB* | Date | **March 23, 2005** |

# FEE TRANSMITTAL
## for FY 2005
*Patent fees are subject to annual revision.*

| Complete if Known | |
|---|---|
| Application Number | 09/189,819 |
| Filing Date | November 10, 1998 |
| First Named Inventor | Ayman Fawaz |
| Examiner Name | Phuc H. Tran |
| Art Unit | 2666 |
| Attorney Docket No. | 2717P033 |

☐ Applicant claims small entity status. See 37 CFR 1.27.

| TOTAL AMOUNT OF PAYMENT | ($) | 500.00 |
|---|---|---|

## METHOD OF PAYMENT *(check all that apply)*

☒ Check ☐ Credit card ☐ Money Order ☐ None ☐ Other (please identify): _____

☐ Deposit Account   Deposit Account Number: 02-2666   Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below          ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s)          ☒ Credit any overpayments
under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20.

## FEE CALCULATION

### 1. EXTRA CLAIM FEES

| | | Extra Claims | | Fee from below | | Fee Paid |
|---|---|---|---|---|---|---|
| Total Claims | 15 - 20* = | 0 | x | 50.00 | = | $0.00 |
| Independent Claims | 5 - 5* = | 0 | x | 200.00 | = | $0.00 |
| Multiple Dependent | | | | | = | |

| Large Entity | | Small Entity | | Fee Description |
|---|---|---|---|---|
| Fee Code | Fee ($) | Fee Code | Fee ($) | |
| 1202 | 50 | 2202 | 25 | Claims in excess of 20 |
| 1201 | 200 | 2201 | 100 | Independent claims in excess of 3 |
| 1203 | 360 | 2203 | 180 | Multiple Dependent claim, if not paid |
| 1204 | 300 | 2204 | 150 | **Reissue independent claims over original patent |
| 1205 | 300 | 2205 | 150 | **Reissue claims in excess of 20 and over original patent |

**or number previously paid, if greater, For Reissues, see below

| SUBTOTAL (1) | ($) | 0.00 |
|---|---|---|

### 2. ADDITIONAL FEES

| Large Entity | | Small Entity | | Fee Description | Fee Paid |
|---|---|---|---|---|---|
| Fee Code | Fee ($) | Fee Code | Fee ($) | | |
| 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath | |
| 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet. | |
| 2053 | 130 | 2053 | 130 | Non-English specification | |
| 1251 | 120 | 2251 | 60 | Extension for reply within first month | |
| 1252 | 450 | 2252 | 225 | Extension for reply within second month | |
| 1253 | 1,020 | 2253 | 510 | Extension for reply within third month | |
| 1254 | 1,590 | 2254 | 795 | Extension for reply within fourth month | |
| 1255 | 2,160 | 2255 | 1,080 | Extension for reply within fifth month | |
| 1401 | 500 | 2401 | 250 | Notice of Appeal | |
| 1402 | 500 | 2402 | 250 | Filing a brief in support of an appeal | 500.00 |
| 1403 | 1,000 | 2403 | 500 | Request for oral hearing | |
| 1451 | 1,510 | 2451 | 1,510 | Petition to institute a public use proceeding | |
| 1460 | 130 | 2460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | |
| 1809 | 790 | 1809 | 395 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 1810 | 790 | 2810 | 395 | For each additional invention to be examined (37 CFR § 1.129(b)) | |

Other fee (specify) _____

| SUBTOTAL (2) | ($) | 500.00 |
|---|---|---|

## SUBMITTED BY

| Name (Print/Type) | Vincent H. Anderson | Registration No. (Attorney/Agent) | 54,962 | Telephone | (503) 439-8778 |
|---|---|---|---|---|---|
| Signature | *(signature)* | | | Date | 03/23/05 |

Complete (if applicable)

Based on PTO/SB/17 (12-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 12/15/2004.
SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450